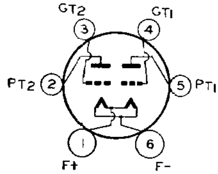



# RCA-19

## CLASS B TWIN AMPLIFIER




The 19 combines in one bulb two high-mu triodes designed for Class B operation. It is intended for use in the output stage of battery-operated receivers and is capable of supplying approximately 2 watts of audio power. The triode units have separate external terminals for all electrodes except the filaments, so that circuit design is similar to that of Class B amplifiers utilizing individual tubes in the output stage.

### CHARACTERISTICS

| | | |
|---|---|---|
| FILAMENT VOLTAGE (D. C.) | 2.0 | Volts |
| FILAMENT CURRENT | 0.26 | Ampere |
| BULB | | ST-12 |
| BASE | | Small 6-Pin |

As Class B Power Amplifier

| | | | | |
|---|---|---|---|---|
| PLATE VOLTAGE | | | 135 *max.* | Volts |
| MAXIMUM SIGNAL PLATE CURRENT (Per plate) | | | 50 *max.* | Milliamperes |
| TYPICAL OPERATION | | | | |
| Plate Voltage | 135 | 135 | 135 | Volts |
| Grid Voltage | −6 | −3 | 0 | Volts |
| Zero-Signal Plate Current (Per plate) | 0.5 | 2 | 5 | Milliamperes |
| Effective Load Resistance (Plate-to-plate) | 10000 | 10000 | 10000 | Ohms |
| Average Power Input (Approx.)* | 95 | 130 | 170 | Milliwatts |
| Power Output (Approximate) | 1.6 | 1.9 | 2.1 | Watts |

* Applied between grids to give indicated values of power output.

### INSTALLATION

The base pins of the 19 fit the standard six-contact socket. The socket should be installed to hold the tube in a vertical position. In same cases, cushioning of the socket may be found desirable.

For filament operation, refer to INSTALLATION for type 1A6.

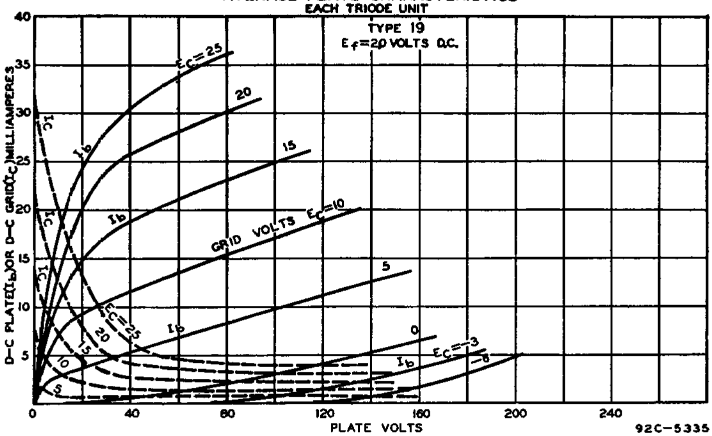
### APPLICATION

As a **Class B power amplifier** in the output stage of battery-operated receivers, the 19 should be operated as shown under CHARACTERISTICS. In such service, it may be operated either with zero grid bias or with negative grid bias. The latter method may be of advantage in cases where plate-battery drain must be conserved, even at some sacrifice in power output.

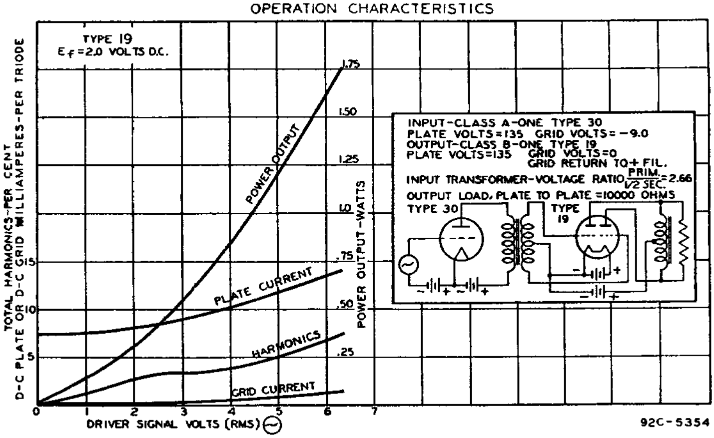
The type of driver tube chosen to precede the 19 should be capable of handling enough power to operate the Class B amplifier stage. Allowance should be made for transformer efficiency. It is most important, if low distortion is desired, that the driver tube be worked well below its Class A undistorted output rating, since distortion produced by the driver stage and the power stage will be present in the output. A discussion of Class B amplifier features is given on page 20.

## AVERAGE PLATE CHARACTERISTICS

EACH TRIODE UNIT




## OPERATION CHARACTERISTICS




## AVERAGE PLATE CHARACTERISTICS

